

CLAIM AMENDMENTS

Please enter the following amendments to the claims, which are presented in accordance with revised 37 C.F.R. § 1.121.

1. (original) A nozzle for providing nitrous oxide to an internal combustion engine, the nozzle comprising:

a fuel injector passage, having a central axis and terminating at an injector outlet, for passing fuel from a fuel injector therethrough; and

a first auxiliary passage, terminating at a first outlet, for passing nitrous oxide therethrough.

2. (original) The nozzle of claim 1, wherein the nozzle is adapted to be positioned between a fuel injector and an engine without substantial modification to the engine.
3. (original) The nozzle of claim 1, wherein the nozzle is adapted to be positioned proximal to the engine's original fuel injector location.
4. (original) The nozzle of claim 1, wherein the fuel injector passage is tapered to have a larger inside diameter at the injector outlet.
5. (original) The nozzle of claim 1, wherein the fuel injector passage has an inside diameter of between about 0.035 and about 0.200 inches.
6. (original) The nozzle of claim 1, wherein the fuel injector passage has an inside diameter of about 0.075 inches to about 0.116 inches.
7. (original) The nozzle of claim 1, wherein the nozzle is adapted to fit between a fuel injector and an engine without raising the fuel injector more than about 1.25 inches relative to a fuel injector receptacle.
8. (original) The nozzle of claim 1, wherein the nozzle is adapted to fit between a fuel injector and an engine without raising the fuel injector more than about 0.75 inches relative to a fuel injector receptacle.

9. (original) The nozzle of claim 1, wherein the nozzle is adapted to fit between a fuel injector and an engine without raising the fuel injector more than about 0.50 inches relative to a fuel injector receptacle.
10. (original) The nozzle of claim 1, further comprising a second auxiliary passage, terminating at a second outlet, for passing nitrous oxide or additional fuel therethrough.
11. (original) The nozzle of claim 10, wherein the first auxiliary passage has a diameter of about 0.025 inches to about 0.075 inches.
12. (original) The nozzle of claim 10, wherein the first auxiliary passage has a diameter of about 0.050 inches.
13. (original) The nozzle of claim 10, wherein the second auxiliary passage has a diameter of about 0.025 inches to about 0.075 inches.
14. (original) The nozzle of claim 10, wherein the second auxiliary passage has a diameter of about 0.050 inches.
15. (original) The nozzle of claim 10, further comprising a diffuser plate located proximal to the first outlet and the second outlet.
16. (original) The nozzle of claim 15, wherein the diffuser plate is angled relative to the central axis.
17. (original) The nozzle of claim 16, wherein the diffuser plate is angled by about 5 degrees to about 90 degrees relative to the central axis.
18. (original) The nozzle of claim 16, wherein the diffuser plate is angled by about 10 degrees to about 30 degrees relative to the central axis.
19. (original) The nozzle of claim 10, wherein the first outlet and the second outlet comprise radial outlets.
20. (original) The nozzle of claim 19, wherein the first outlet and second outlet are rectangular passages.

21. (original) The nozzle of claim 20, wherein the first outlet and second outlet have a width (in a plane orthogonal to the central axis of the fuel injector passage) of about 0.050 inches to about 0.150 inches, and a height (in a plane parallel with the central axis of the fuel injector passage) of about 0.010 inches to about 0.040 inches.
22. (original) The nozzle of claim 20, wherein the first outlet and second outlet have a width (in a plane orthogonal to the central axis of the fuel injector passage) of about 0.100 inches and a height (in a plane parallel with the central axis of the fuel injector passage) of about 0.020 inches.
23. (original) The nozzle of claim 19, wherein the first outlet and second outlet are each angled in a helical fashion relative to the central axis.
24. (original) The nozzle of claim 23, wherein the first outlet and second outlet are each angled toward the central axis by about 5 degrees to about 90 degrees, and are angled in a plane orthogonal to the central axis by about 0 degrees to about 90 degrees relative to the outer surface of the nozzle at the respective outlet.
25. (original) The nozzle of claim 23, wherein the first outlet and second outlet are each angled toward the central axis by about 45 degrees to about 60 degrees, and are angled in a plane orthogonal to the central axis by about 40 degrees to about 60 degrees relative to the outer surface of the nozzle at the respective outlet.
26. (original) The nozzle of claim 10, wherein the first outlet and the second outlet are on opposite sides of the fuel injector outlet.
27. (original) The nozzle of claim 10, wherein the first outlet and the second outlet are located about 10 degrees to about 180 degrees apart relative to the central axis of the fuel injector passage.
28. (original) The nozzle of claim 10, wherein the first outlet and the second outlet are located about 45 degrees to about 135 degrees apart relative to the central axis of the fuel injector passage.

29. (original) The nozzle of claim 10, wherein the first outlet and the second outlet are located about 90 degrees apart relative to the central axis of the fuel injector passage.
30. (original) A nozzle for providing combustion reactants to an internal combustion engine, said nozzle comprising:
- a fuel injector passage, having a central axis and terminating at an injector outlet, for passing fuel from a fuel injector therethrough; and
 - a plurality of first auxiliary passages, terminating at a plurality of first outlets, for passing a nitrous oxide supply therethrough, the first auxiliary passages being located in an annular pattern around the central axis and radially outward of the injector outlet.
31. (original) The nozzle of claim 30, wherein the fuel injector passage has a diameter of about 0.250 inches to about 0.750 inches.
32. (original) The nozzle of claim 30, wherein the fuel injector passage has a diameter of about 0.375 inches to about 0.625 inches.
33. (original) The nozzle of claim 30, wherein the fuel injector passage has a diameter of about 0.450 inches to about 0.550 inches.
34. (original) The nozzle of claim 30, wherein the plurality of first auxiliary passages each have a diameter of about 0.020 inches to about 0.100 inches.
35. (original) The nozzle of claim 30, wherein the plurality of first auxiliary passages each have a diameter of about 0.040 inches to about 0.080 inches.
36. (original) The nozzle of claim 30, wherein the plurality of first auxiliary passages each have a diameter of about 0.060 inches.
37. (original) The nozzle of claim 30, wherein the plurality of first auxiliary passages comprises 2 to 16 first auxiliary passages.
38. (original) The nozzle of claim 30, wherein the plurality of first auxiliary passages comprises 5 to 12 first auxiliary passages.

39. (original) The nozzle of claim 30, wherein the plurality of first auxiliary passages comprises 7 to 9 first auxiliary passages.
40. (original) The nozzle of claim 30, further comprising a plurality of second auxiliary passages, terminating at a plurality of second outlets, for passing a combustion reactant therethrough, the second auxiliary passages being located in an annular pattern around the central axis and radially outward of the first auxiliary passages.
41. (original) The nozzle of claim 40, wherein the plurality of second auxiliary passages each have a diameter of about 0.020 inches to about 0.100 inches.
42. (original) The nozzle of claim 40, wherein the plurality of second auxiliary passages each have a diameter of about 0.040 inches to about 0.080 inches.
43. (original) The nozzle of claim 40, wherein the plurality of second auxiliary passages each have a diameter of about 0.060 inches.
44. (original) The nozzle of claim 40, wherein the plurality of second auxiliary passages comprises 2 to 16 second auxiliary passages.
45. (original) The nozzle of claim 40, wherein the plurality of second auxiliary passages comprises 5 to 12 second auxiliary passages.
46. (original) The nozzle of claim 40, wherein the plurality of second auxiliary passages comprises 7 to 9 second auxiliary passages.


Claims 47-64 (cancelled)

REMARKS

By this amendment, the specification is amended to claim priority to two prior U.S. Applications, and claims 47-64 are cancelled without prejudice or disclaimer to the subject matter therein. Applicants believe that the amendments herein are fully supported by the original specification, and their entry is earnestly solicited.

Respectfully submitted,
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